

Project Name: Pearl and Prairie Lakes Stormwater
Outfall Improvements
Client: Seminole County Public Works



The Pearl and Prairie Lakes Stormwater Outfall Improvements Project was located in south Seminole County bounded to the north by SR 436 and to the east by US 17-92. The purpose of this study was to assess the conditions of the lake outfall systems and to propose improvement design alternatives. The project was focused on alternatives to address the Pearl Lake outfall ditch which was severely eroded and silted and located outside of County right-of-way. The project included identification of all easement and right-of-way requirements to allow Seminole County permanent access to the outfall paths.

The improvements design for this project included acquisition of easements along the Pearl Lake outfall path and replacing the existing outfall ditch with an enclosed storm piping system. The improvements helped maintain the outfall path and provided a safe and more aesthetically pleasing storm sewer outfall without causing any adverse floodplain impacts to the upstream and downstream systems. Public involvement was necessary including meetings with the Pearl- Prairie Lake group to review proposed improvements.

Included in the design efforts were data collection, stormwater inventory and problem definition, engineering drainage assessments and plans production. ICPR was used to model and assess both existing and alternatives conditions whereas GIS was used to provide topological analysis and graphics for report purposes. An expanded basin analysis was necessary to properly evaluate potential flooding impacts downstream in the County's Gee Creek basin. MicroStation was used for design plans production. Permitting was necessary through the St. Johns River Water Management District to address surface water impacts and lake level management.

As the prime consultant for this stormwater management project, Inwood was responsible for providing all stormwater management analysis, engineering assessment design, and permitting on behalf of Seminole County.

